

**ELEVATED TEMPERATURE OXIDATION PROTECTION COATINGS FOR
TITANIUM ALLOYS AND METHODS OF PREPARING THE SAME**

ABSTRACT OF DISCLOSURE

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Oxidation protection of a titanium-based alloy is provided with improved fatigue properties by a titanium aluminide coating of between 2 to 12 microns by diffusing the Al into the Ti at a temperature below the melting point of the Al. The coating is gas deposited and protects the titanium-based alloys from oxidation at 10 high temperature utilization.